UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
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ART UNIT	PAPER NUMBER
2655	

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/976,717	HARINARAYAN ET AL.
	Examiner	Art Unit	
	Brian L. Albertalli	2655	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *13 June 2005*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-55* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-55* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some *   c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Specification

1.   The amendments to the specification overcome the objections made in the previous Office Action. The objections to the specification are withdrawn.

Response to Amendment

2.   The amendments to the claims have been entered. Claims 1-6, 10, 13, 14, 16, 19-21, 24, 28, 32-34, and 38-42 are currently amended and new claims 46-55 have been added.

Response to Arguments

3.   Applicant's arguments with respect to claims 1-45 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5.   Claims 16 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had

possession of the claimed invention. There is no indication in the specification of

specifically notifying the human who is to perform a subtask the maximum amount of

time to be spent on that subtask. Page 13, lines 16-23 describe that the Task Server

102 describes to the Junta server 106 a maximum time attribute for a subtask, but there

is no description of the Junta server 106 passing this information to a human user at a

Junta node.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7.   Claims 1-4, 6-15, 19-22, 24-30, 32-35, 37-46, 49, 50, and 53-55 are rejected

under 35 U.S.C. 102(e) as being anticipated by Bejar et al. (U.S. Patent 6,295,439).

In regard to claims 1, 19, and 32, Bejar et al. disclose a method, storage

medium, and apparatus comprising a storage medium for a computer system to user

human assistance in performing tasks, the method comprising:

automatically and under control of a first computer system (Fig. 1, 10, column 4,

lines 50-53), causing a task (assessment) to be performed by,

identifying a first and second subtask of the task (the task of evaluating scores awarded by human evaluators to constructed responses is broken into subtasks by assigning each constructed response to a category, each category representing a subtask to be completed, Fig. 11A, step 303, column 17, lines 63-67);

identifying one or more required capabilities of a human for performance of the first subtask (each category is an area of expertise to which the human evaluator is assigned, step 305, column 17, line 67 to column 18, line 2 and column 8, lines 7-10 and lines 15-24);

dispatching the first subtask to a remote second computer system of a first human for performance by said first human, the first human identified as being one or more humans who have the capabilities that satisfy the required capabilities of the first subtask (step 311, the constructed responses to be evaluated are transmitted to the human evaluators at assessment stations, column 18, lines 14-19 and column 5, lines 24-32);

receiving a first result from said first human via the second computer system, the first result generated by performance of said subtask by said first human (Fig. 11B, step 315, the constructed responses are scored by the human evaluator and the scores are transmitted back from the assessment stations, column 18, lines 30-32); and

generating a result for said task based at least in part on said first result (step 321, the scores awarded by the human evaluator are analyzed, column 18, lines 47-51).

In regard to claims 2, 20, and 33, Bejar et al. disclose the identifying by the first computer system of the first and second subtasks of the task includes decomposing the task into at least the first and second subtasks (the task of evaluating a plurality of constructed responses is broken down by assigning the constructed responses to categories, column 17, lines 52-67).

In regard to claims 3, 21, and 34, Bejar et al. disclose the method further comprises the first computer system dispatching said second subtask to a third computer system of a second human for performance by the second human (step 307, a second human evaluator is assigned to at least one of the same categories as the first human evaluator, column 18, lines 2-5), and the first computer system receiving a second result from the second human via the third computer system for the second subtask (at step 315 when scores from all the evaluators are transmitted, column 18, lines 30-32 and lines 35-37); and

the first computer system further bases its generation of the result for said task on said second result (scores of all the evaluators are analyzed, column 18, lines 47-51).

In regard to claims 4, 22, and 35, Bejar et al. disclose said task further comprising a third subtask, and the method further comprises the first computer system receiving and performing said third subtask producing a third result; and

the first computer system further bases its generation of the result for said task on said third result (Fig. 2B, step 107, a subtask of the overall task of evaluating scores awarded by human evaluators to constructed responses includes a subtask of determining the correct application to launch for the evaluator, column 7, lines 18-25, this subtask is necessary to launch the correct application for the human evaluator, thus the generation of the result for the overall task is 'based on' this result, column 8, lines 51-57).

In regard to claims 6, 24, and 37, Bejar et al. discloses said first human is one of college educated, at most high school educated, at most elementary school educated, and not formally educated (every human is *one of* these education levels; that is, these four education levels represent every level of education a human could possibly have, therefore, any human will be *one of* college educated, at most high school educated, at most elementary school educated, and not formally educated).

In regard to claims 7, 25, and 38, Bejar et al. discloses said subtask is one of text, speech, sound, and images related operations (the constructed responses evaluated by the human evaluators comprise text documents, audio responses, and drawings, column 9, lines 41-50 and column 11, lines 3-5).

In regard to claims 8, 26, and 39, Bejar et al. discloses the result is one of text, numbers, tuples, and sound (column 11, lines 5-7).

In regard to claims 9, 27, and 40, Bejar et al. discloses said task is one of text classification, image comparison, image processing, speech comparison, speech recognition, conversion of speech into text, and comparison of music samples (the human evaluator classifies the constructed responses by assigned each constructed response a score, column 18, lines 23-57).

In regard to claims 10, 28, and 41, Bejar et al. discloses said task is associated with multiple attributes related to performance of said task, the attributes including an accuracy attribute, a security attribute, a timeout attribute, a maximum time spent attribute, a maximum cost per task attribute, and a maximum total cost attribute, and wherein the identifying of the one or more humans, the dispatching of the first subtask, and the generating of the result for said task are performed in a manner to reflect the multiple associated attributes (column 10, lines 3-10 and column 13, lines 22-36).

In regard to claim 11 Bejar et al. discloses said task is associated with one or more attributes, and said attribute includes an accuracy attribute (column 13, lines 31-36).

In regard to claims 12, 29, and 42, Bejar et al. discloses dispatching said first subtask to N-1 additional humans to perform said subtask and said accuracy comprises a selection of one of majority governs, and at least N2 agreed answers, wherein N2 and

N1 are integers, with N2 greater than N1 (column 15, lines 24-28 and column 16, lines 31-37).

In regard to claims 13 and 43, Bejar et al. disclose tracking the accuracy of additional humans (the accuracy of all evaluators is tracked, column 13, lines 31-36).

In regard to claims 14 and 44, Bejar et al. disclose said generation of the result further takes into consideration the accuracy of the additional humans (column 19, lines 23-26).

In regard to claims 15, 30, and 45, Bejar et al. discloses said task is associated with one or more attributes including a security attribute, and said security attribute comprises a selection of one of a strict security level, a lax security level, and no security level (constructed responses are executed in write protected mode or view only mode, column 9, lines 31-41).

In regard to claim 46, Bejar et al. disclose the first computer system is a task server system that is part of a distributed hybrid computer/human computation arrangement, and wherein the first human is one of numerous human remote from the task seer system who each use distinct client computing devices to act as nodes of the distributed hybrid computer/human computation system (Fig. 1, column 5, lines 24-32).

In regard to claim 49, Bejar et al. disclose the dispatching by the first computer system of the first subtask to the remote second computer system is performed using a defined application programming interface ("API") (see appendix A).

In regard to claim 50, Bejar et al. disclose the dispatching by the first computer system of the first subtask to the remote second computer system is performed by programmatically sending one or more messages from the first computer system to the remote computer system (column 5, lines 28-32).

In regard to claim 53, Bejar et al. disclose the required capabilities of the human for performance of the first subtask include an ability to speak a specified language (English, column 8, lines 26-29).

In regard to claim 54, Bejar et al. disclose the required capabilities of the human for performance of the first subtask include an ability to hear (constructed response may be audio, column 11, lines 3-5).

In regard to claim 55, Bejar et al. disclose the required capabilities of the human for performance of the first subtask include a specified degree of historical accuracy by the human when performing subtasks (column 13, lines 31-36).

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9.   Claims 5, 23, and 36 rejected under 35 U.S.C. 103(a) as being unpatentable over

Bejar et al., in view of Burstein et al. (U.S. Patent 6,181,909).

Bejar et al. does not disclose the first computer system additionally performs said

second subtask (evaluates a constructed response) and the first computer system

further bases its generation of the result for said task on said second result.

Burstein et al. disclose a method and system for performing a subtask (scoring

an essay) to produce a result (essay score, column 3, lines 45-51).

It would have been obvious to one of ordinary skill in the art at the time of

invention to modify Bejar et al. to perform said second subtask (scoring of one of the

categories of constructed responses) at the first computer using the method of

automatic essay scoring disclosed by Burstein et al., in order to provide a standard

score by which the human evaluators could be assessed.

10.   Claims 17, 18, 31, 51, and 52 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Bejar et al., in view of Paiziz (U.S. Patent 6,338,042).

In regard to claims 17 and 18, Bejar et al. do not disclose said task is associated with one or more attributes, and said attributes include a maximum cost per task attribute or a maximum total task cost attribute.

Paiziz discloses a method wherein a task (contribution) is associated with one or more attributes, and said attributes include a maximum cost per task (Fig. 4, 418, each individuals contributions are given a maximum market reference point, column 8, lines 36-40) and a total task cost attribute (414, total overall budget available to pay the individuals in the given role, column 8, lines 23-25).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Bejar et al. to associate a maximum cost per task attribute or a maximum total task cost attribute with the task, so that monetary compensation decisions for individuals could be automatically determined according to the individuals contributions, as taught by Paiziz, column 2, lines 47-51).

In regard to claim 31, Bejar et al. disclose said task is associated with one or more attributes, wherein the attributes include a maximum time to be spent on a task (elapsed time to award a score, column 10, lines 3-7).

Bejar et al. do not disclose said attributes include a maximum cost per task attribute or a maximum total task cost attribute.

Paiziz discloses a method wherein a task (contribution) is associated with one or more attributes, and said attributes include a maximum cost per task (Fig. 4, 418, each individuals contributions are given a maximum market reference point, column 8, lines

36-40) and a total task cost attribute (414, total overall budget available to pay the individuals in the given role, column 8, lines 23-25).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Bejar et al. to associate a maximum cost per task attribute or a maximum total task cost attribute with the task, so that monetary compensation decisions for individuals could be automatically determined according to the individuals contributions, as taught by Paiziz, column 2, lines 47-51).

In regard to claim 51, Bejar et al. do not disclose providing information to the first human of a payment associated with performance of the first subtask if the human chooses to perform the subtask.

Paiziz discloses a method in which a payment associated with the performance of a subtask (contribution) if the human chooses to perform the subtask (suggested pay according to an individual's contribution, Fig. 4, step 360, column 7, lines 41-45).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Bejar et al. to provide information to the first human of a payment associated with a subtask, so that the first human could determine whether the pay was acceptable, as taught by Paiziz (column 7, lines 41-45).

In regard to claim 52, Bejar et al. do not disclose providing to the first human a payment associated with the first subtask.

Paiziz disclose a method in which a human is provided a payment associated with a subtask (contribution, Fig. 4, step 364 a payment decision is made, column 7, lines 45-54).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Bejar et al. to provide to the first human a payment associated with the subtask, so the human could be appropriately compensated for services rendered.

11.   Claims 47 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bejar et al., in view of Christensen et al. (U.S. Patent 5,881,230).

In regard to claim 47, Bejar et al. discloses that the services of the task server system and the coordinating server (i.e. coordinating the performance of the first subtask by identifying the first human as having capabilities that satisfy the identified required capabilities and sending to the second computer system of the first human an indication of the first subtask to be performed) are performed on the same physical server (Fig. 1, assessment system 10, column 17, lines 63-67; column 17, line 67 to column 18, line 2; column 8, lines 7-10 and lines 15-24; column 18, lines 14-19; and column 5, lines 24-32).

Bejar et al. do not disclose that the coordination services are performed on a distinct coordination server remote from the task server system, wherein the task server system sends information indicating the first subtask and required capabilities to the remote coordination server.

Christensen et al. disclose a method for implementing application objects on remote computers as needs dictate so that a given logical model can be implemented independently of the underlying physical model (column 13, line 62 to column 14, line 27).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Bejar et al. so the services of the task server and the services of the coordinating server were implemented on separate physical servers with the appropriate information sent between two, so that the physical performance and administration needs of the system could be addressed without giving up the logical model, as taught by Christensen et al. (column 13, lines 62-67).

In regard to claim 48, Bejar et al. disclose the coordinating services identify a first and second subtask of the task (column 17, lines 63-67), wherein the coordinating services causes the result to be generated for the task based at least in part on the first result (column 18, lines 30-32), wherein the human is one of numerous humans who each use distinct client devices to act as nodes available to the coordinating server computing system (column 5, lines 24-28).

Bejar et al. do not disclose that the coordination services are performed on a distinct coordination server remote from the task server system, wherein the task server system sends information indicating the first subtask and required capabilities to the remote coordination server.

Christensen et al. disclose a method for implementing application objects on remote computers as needs dictate so that a given logical model can be implemented independently of the underlying physical model (column 13, line 62 to column 14, line 27).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Bejar et al. so the services of the task server and the services of the coordinating server were implemented on separate physical servers with the appropriate information sent between two, so that the physical performance and administration needs of the system could be addressed without giving up the logical model, as taught by Christensen et al. (column 13, lines 62-67).

Conclusion

12.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Knowles et al. (U.S. Patent 6,751,351) disclose a method for human individuals to perform character recognition at remote terminals.

13.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian L. Albertalli whose telephone number is (571) 272-7616. The examiner can normally be reached on Mon - Fri, 8:00 AM - 5:30 PM, every second Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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Business Center (EBC) at 866-217-9197 (toll-free).

BLA 9/28/05

W. R. YOUNG
PRIMARY EXAMINER